

REMBASS-II IPM



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VENDOR DESCRIPTION

The REMBASS-II Infrared Plug-In Module (IPM) is part of the REMBASS-II Sensor Set equipment group. The IPM consists of an infrared transducer and a processor unit. The IPM provides the user with an unattended ground sensor which detects passing targets and provides direction of travel. The IPM works by detecting a temperature differential of a target against a steady state background, induced by the movement of vehicles and personnel. The IPM reports target activity (detection and direction of movement) to the REMBASS-II base unit, which transmits a short burst digital RF message to a field monitor or field processing unit.



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Business Category: Large Business

PIR

Power Source		Environmental	
Sensors	Via REMBASS-II S/A base unit utilizing: 4 COTS 9V lithium batteries 30 days @ 1000 activations/day @ -40°C 45 days @ 1000 activations/day @ +20°C	High Temp.	+71.1°C
		Low Temp.	-40°C (Monitor -25°C)
		Altitude	15,000 ft (Operating) 35,000ft (Transit)
		Humidity	95% relative humidity per MIL-STD-810E
Supplemental Battery Box	8 COTS 9V lithium batteries Additional 60 days mission life	Immersion	Withstands 24 hrs in 1m H ₂ O at 27°C differential
Monitor	4 COTS 9V lithium batteries 7 days @ 4000 activations/day @ -25°C 12 days @ 4000 activations/day @ +20°C	Sand/Dust	Resistant in 35-knot winds per MIL-STD-810E
		Salt	Resistant per MIL-STD-810E, Method 509.2
		Fungus	Resistant to 28 days growth period
Repeater	1 BA-5590 lithium battery 25 days @ 4000 activations/day @ -40°C	Shock/Vibe	Random vibration, drop test & loose cargo test /MIL-STD-810E
		EMI/EMC	Complies w/MIL-STD-461A, Level CE06, RE02, RE02.1, RS03

Sensor	Description	Detection	Size/Weight	Features
Passive Infrared	Detects temperature differential between target and background. Provides direction and target count.	Tracked Vehicle 3-75m Wheeled Vehicle 3-75m Personnel 3-30m	116mm x 66mm x 53mm Weight: 0.8 kg	<ul style="list-style-type: none"> Passive operation, covert deployment Power efficient, uses COTS batteries

Device	Description	Message Type	Size/Weight	Features
Monitor	Provides the capability to display sensor transmissions. Can be used to relay sensor data to an external digital display via built-in RS-232 port.	29-bit REMBASS 101-bit REMBASS 20/29 TRSS 101/285 TRSS	53mm x 78mm x 163mm Weight: 0.7 kg	<ul style="list-style-type: none"> VHF 138-153 MHz 599 channels LPI/LPD ultra-short burst transmissions 2-watt transmitters, 15km range (100km airborne)